

AMERICAN BEE JOURNAL



37th Year.

CHICAGO, ILL., APRIL 22, 1897.

No. 16.



Another Non-Swarming Device Described.

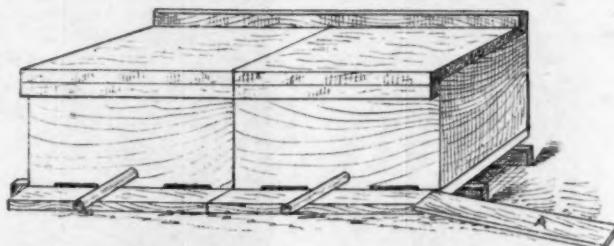
BY DR. E. GALLUP.

I herewith send a diagram and description of Harding's Non-Swarming Device. It can be applied to any shape of hive. Set two hives close together, side by side; bore an inch hole in the center of each hive just above the entrance, and insert a tin tube 6 inches long. Now, if I have the right understanding, just before swarming time, close the main entrance to hive No. 1. All the workers come out through the tube, and cannot get back, consequently they go into the adjoining hive. In about four days unclose the entrance to hive No. 1, and close up hive No. 2. This throws all the workers back into No. 1. You will readily see that this discourages swarming, and if queen-cells are sealed, they will be torn down, etc. The workers will store honey very rapidly—in fact, just as fast in one hive as the other. One can transpose the worker force and all young bees that come out for their first flight, and, I think he said, about twice changing was sufficient to discourage swarming for the season.

There ought to be some arrangement to give water, also for ventilation to the closed hive for the time it is closed. That is my suggestion. Of course, California bee-keepers in large apiaries are not troubled with too much swarming, as a general rule.

With the above explanation, and the accompanying diagram, any one can try the experiment to suit himself. Setting two hives together will economize ground in the apiary, etc.

There may be objections to the above plan, such as balling the queen by compelling so many strange bees to go into another hive, yet I have not had any trouble in transferring



Harding Non-Swarming Device.—A, Entrance-Closing Board.

hives when bees are gathering honey rapidly. Still, there will be trouble at seasons when foraging is not abundant. I have lost queens by transposing to prevent robbing and to strengthen up a weak colony, by not caging the queens at the time, away back, years ago. Still, we have to learn every-

thing by experience, or what others tell us. I had to learn to walk by experience.

Mr. Harding is an old, practical bee-keeper, and thinks he has solved a problem that will be of value to some.

Orange Co., Cal.

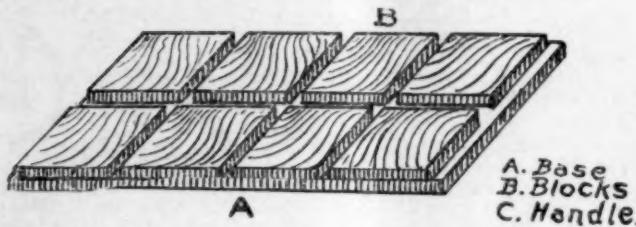


Fastening Foundation and Wiring Frames.

BY B. F. ONDERDONK.

The American Bee Journal is ever a welcome guest with me, interesting and instructing beyond any other in our pleasant occupation. Dr. Miller's replies are usually replete with information. I note on page 103, advice as to fastening foundation and wiring. I think the following a better way:

I use a spirit lamp under a small tin basin (4 inches in diameter) containing some good beeswax, keeping it well melted, not too hot, and using a straight strip of tin, 7 inches



Form for Fastening Foundation in the Sections.

long by $1\frac{1}{2}$ inches wide. Dip what it will hold, and let the wax run into the saw-kerf, by holding the frame diagonally about 30° . One dipping will run rapidly half the length of the frame; another dipping will finish it. I make the saw-kerf $3/16$ instead of $\frac{1}{4}$ inch.

For wiring, instead of pierced end-bars with wires running through (they draw into the wood and sag), use $\frac{1}{4}$ -inch fine wire nails run through them from the outside and turned up into a hook on the inside, using a small pair of pliers. The wire can be strung on the hook-nails then.

And why did the Doctor not recommend a spur wire imbedder or the lamp scheme? I fancy an inexpert hand would meet with disaster—destruction of one frame of foundation, to say nothing of the vexation, will pay for the imbedder.

I fix foundation in the sections with melted wax, fastening the top and sides so there can be no swing, always using bottom starters $\frac{1}{8}$ inch wide, leaving $\frac{1}{4}$ -inch space between. I use a "form" for the work as per illustrations herewith, with a handle in the back similar to a mason's hawk, so it can be readily turned, holding the tool at an angle so the wax will run readily along the foundation and wood.

This "form" holds eight sections. Blocks should be $1/16$ inch less in thickness than the half width of a section.

perfectly square, and drop easily into the section, being careful to nail them on the base (of $\frac{3}{8}$ lumber) with a space of at least $5/16$ inch between each two blocks. With a little practice an amateur can put in foundation very rapidly, and make a good job. I have no doubt many of these appliances are in use, but there are many small bee-keepers who know nothing about them.

I use the same kind of appliance for wiring frames and putting in foundation, with one block fitting in the frame, the top-bar resting on the base with a strip at the opposite edge on which the bottom-bar rests. This insures the finish brood-frame perfectly true and square. I cannot understand why the supply dealers do not make and offer these appliances for sale.

I am very fond of honey and eat it with each meal, and agree with S. La Mont, that the foundation is objectionable; the combs drawn at the end of the season show the fishbone more than that drawn earlier. On Feb. 21 my bees were out in force, reminding me of swarming time. I found some half a mile from home when I went to Sunday school, at 2 p.m.

I am sorry amalgamation did not succeed, as I was waiting to send a dollar for membership to the United States Bee-Keepers' Union. Well, try, try again.

Passaic Co., N. J.



A New Bee-Keepers' Union Unwise.

BY PROF. A. J. COOK.

I believe fully in the right of majorities to rule. It would seem that the majority of the bee-keepers represented in the National Bee-Keepers' Union desire that that organization do not undertake to perform other work than that which it has already prosecuted so admirably in the past. I am not so sure this is true. I am inclined to the opinion, that many who voted at the last election were not informed properly or fully as to just what was intended. Is it not true that the work of defending bee-keepers against unjust accusation and attack, against ignorance, prejudice and enmity, is nearly done? The success of each defense in the past, together with the valuable precedents now on record in the courts, make it very probable, as it seems to me, that very few such prosecutions will be undertaken in the future, and so very few calls will be made upon the old Union to engage further in the work which it first set itself to do.

If I am correct in the above judgment, then, plainly, the old Union should undertake new work, or dissolve. Organizations, like the individuals that compose them, cannot afford to stop work. It were well if no able-bodied man, who refuses to work, even the good—or shall we say evil—fortune has made it unnecessary for him to labor to secure a maintenance, could get food to eat. The world has no worthy use for the hopelessly indolent man. I see no reason why a society should not come under the same rule. If the individual has capital, either in money, muscle, brain or soul, then all the more should he be in the very midst of the world's work. Just so any society or association that has power or prestige because of good work previously done, or capital acquired, is under double obligation to put its shoulder to the wheel of the world's industry.

That the old Union has justly won confidence is true beyond question. It has not only a well-earned reputation, but it also has capital, which has come because it has gained confidence by that best of ways—good, efficient service. The fact that it has done so much less work in the last year or two proves conclusively that there is no great call for the kind of work which it has done in the past. The recent vote shows that it still has the confidence of its members. It surely cannot retain confidence unless it continues to do good work. Again, the society has funds which are lying idle. It seems to me there is no excuse to withhold from doing any kind of service which will tell for the good of the bee-keeping fraternity.

From the above facts I feel very certain that if the exact state of the case were known to all the members of the National Bee-Keepers' Union, that there would be an almost unanimous vote to take up the matters which now so sorely press for attention.

The matter of honey-adulteration is really one of the most important that can now receive attention. There is no question but what a great deal of adulterated honey is now sold in all our great markets. This is to be condemned from many points of view. In the first place, it is a lie, and no lie is ever defensible. To sell a thing for what it is not, is and must ever be demoralizing. Such practice should be denounced on every hand, and no pains should be spared to stamp it out of existence. Again, this practice interferes with the sale of the gen-

uine, and so is a wrong and injustice done to every producer of honey. This is not all; I am entirely certain that all honey adulterated with glucose will soon become distasteful, and thus the purchase of adulterated honey must ever tend to injure the market for the pure article. People think they do not like honey, whereas if they had only eaten genuine honey, they still would have craved it, and would have continued to buy. It seems to me, then, true beyond question, that no better service can be given to bee-keepers than to unite all our forces to drive this nefarious fraud out of existence.

During the present winter, owing largely to the enterprise and hard work of one of California's most able and enterprising bee-keepers—Mr. Clayton—our State now has a splendid law regarding adulteration of honey. Mr. Clayton not only studied the subject thoroughly himself, but he called to his assistance all available aids that the Bill might be as near perfection as was possible. After perfecting the Bill, Mr. Clayton, sustained by the State Association, and by individual influence, prest the matter before the Legislature with such emphasis, that I believe the Bill was the first one to pass this session; at least it was one of the first. The same energy will bring the same result in every other State of our country; and what will still be better, unanimous effort throughout the country would secure national legislation in this matter.

Thus we have now only to see that this law is enforced. We all know how difficult it is even when we have good legislation, to execute laws where there is any considerable money influence against such enforcement. Thus we need more than law, in order to stop the work of honey-adulteration. We must have just such an effort as the old Union has made in its past struggles. I have not a question but what if the National Bee-Keepers' Union would take up this matter with the same wisdom and energy that carried on its past contests, we should soon have as great victory in this line as we secured in our past action. I cannot see how any one could oppose such a course, if the matter was fully understood. I believe if we will all unite and push this matter, we can soon secure action that will make itself felt throughout the whole country.

As one of the Vice-Presidents of the old Union, I most earnestly urge that we commence action at once, in such States as have efficient laws regarding honey-adulteration. I know of no better place to begin work than right here in California. No individual should be asked to do this work at his own expense. The old Union can afford to do it, and could commence operations with far greater hope of success than could any individual. I hope that all the other officers of the Union will at once speak their mind on this subject, that we may begin work at once, and press the matter to a speedy issue. I thus urge every one of the officers to express opinion through the American Bee Journal. In this way we can get sentiment without being obliged to enter into correspondence for a vote.

It seems to me unwise to form a New Union. I have read with much interest Mr. McIntyre's article in last Gleanings. I have great confidence in Mr. McIntyre, know him to be one of our best and most intelligent bee-keepers, and have the most thorough respect for his judgment; yet I do not agree with him in this matter. It seems to me that in this work, as in all matters of this kind, it is very important for all to hang together. I have never seen any good results come from divided counsel.

It has been made evident above, as it seems to me, that the old Union is fully prepared and can now well take up this new work. To double the organization, create a new set of officers, and build up all the new machinery necessary to organize the new association, seems to me utterly unwise and indefensible. I believe Mr. McIntyre will think the same, as he gives the matter further consideration. We have an organization all ready to go to work. It has funds lying idle. It has the prestige of past success. It certainly is just the association to grapple with this terrible enemy of adulteration. I sincerely hope we may have an expression of opinion at once, and that there may be no delay in taking hold of the new fight with all the energy possible to command.

Los Angeles, Calif.
[See page 248, for editorial comments on the above article.—EDITOR.]



Changing the New Union's Name.

BY EMERSON TAYLOR ABBOTT.

I have read the editorial on my article, on page 178, and I can agree with some of it, but not with all of it. As to the name suggested, I am not over particular about that. "League" would suit me very well, but I confess it does not strike my fancy quite as well as "Alliance." The words are

given in the dictionary as synonymous, but for some reason I have come to look upon alliance as being a stronger word than league. If the ladies will excuse me, and not misunderstand me—for I believe in woman's rights—I will say that league strikes me as a feminine word, and alliance as masculine. "League" is strong on the moral side, and "Alliance" suggests more physical power. We talk of the "allied powers" when nations unite to defend their rights.

It seems to me that "leagued powers" would sound a little tame; but Epworth League for moral and spiritual work sounds all right. These societies seem to me to have given "league" a special and specific meaning not recognized by the dictionaries, and I would prefer not to belittle the word by using it in any other connection. However, this is only a whim of my own, and is not worth the wasting of very much time.

I do not feel this way about the necessity for a change of name on the part of the United States Bee-Keepers' Union. Of course, no society has a "patent" on the word "Union," but the use of it by the new society, if the old one is to continue in the field, is sure to create confusion, if it is not the cause of unnecessary hard feelings. Take as an illustration the references to the Bee-Keepers' Union which were found in the same number of the Bee Journal which contained the editorial, and which Union is meant? Do you not see that this question would constantly arise unless one, in speaking of the work of the Union, should modify the expression by saying "old," or "new," as the case might be? A name is arbitrary and is given to designate a personality, to point out an individual person or organism, as separate and distinct from all others. Then why designate two children in the family by the same name, when the dictionary is full of names? Most people prefer to name their children so that when John is called, not more than one will be expected to answer.

To change the figure; if I were hunting for land, and plenty could be had for the taking, I should avoid that which was claimed by others, even tho I knew their claim was not good, if I could find other land which would answer my purpose just as well. This is my position with regard to the name "Union," and in the interest of harmony and good feeling, and to avoid confusion, or the necessity for an explanation every time there was a reference made to the work of either of the societies, I suggested the change. I think yet that the point is well taken, and that there is no necessity for waiting until we meet at Buffalo to make the change, if all the members of the United States Bee-Keepers' Union will agree to the change. I, for one, will agree to any name which will overcome the difficulties suggested above.

Buchanan Co., Mo.

[All right, Mr. Abbott, "Alliance" will suit us very well. Or, it might be called, "United States Bee-Keepers' Association." That was the name we suggested in the sample constitution we got up and publish just before the Lincoln convention.

Shall it be "League," "Alliance," or "Association?" Shall a vote be taken at once to decide it? Let as many members as favor a change of name, write to the Secretary (Dr. A. B. Mason, Sta. B., Toledo, Ohio), suggesting such vote.—ED.]



The Williams Automatic Honey-Extractor.

BY VAN ALLEN & WILLIAMS.

EDITOR YORK:—With your permission we wish to say a few words about the "Williams Automatic Honey-Extractor."

It seems some one has written The A. I. Root Company that their four and six frame honey-extractors were an infringement on the Williams. The fact is, if the Root Company have the drawings and description sent them by Mr. Williams, shortly after his patent was issued, they know as much about the principle covered by the Williams' patent as any of their customers. Editor Root has written us asking for price-list and a statement in regard to claim of infringement. At present we do not care to make any positive statement in regard to the matter, but we wish to place the facts before the bee-keepers of this country, and let them judge whether the Cowan four and six frame extractors are an infringement on the Williams or not. We are willing to put up with their decision for the present, at least.

We would like every bee-keeper in this country to compare the illustrations of the reel of the four and six frame Cowan, with those of the Williams, and see how very near they are alike in construction. Each has the circles for the

comb-baskets to rest against when in motion; each has the uprights to hold the circles in place; each has cross-arms to the bottom of the reel, with center shaft passing through the reel; by putting the reversing gear at the bottom of the reel in the Cowan, it was necessary, of course, to have an arm extending from the shaft to each comb-basket, which is an objectionable feature in a honey-extractor. The Williams has a single arm extending across the top of the reel, thus leaving one-half of the extractor free from any obstruction to the easy and rapid handling of combs, but while the reversing arrangement of the Williams is at the top of the reel, where is no possibility of it ever getting daubed with honey, that of the Cowan is at the bottom of the reel where it is very liable to get daubed with honey. But while one is at the top of the reel and the other at the bottom, the principle of reversing is the same, that is, that of reversing from the outside. The Stanley extractor reverses from the inside; and it was the principle of reversing from the outside, with a gear attach to the comb-basket, on which Mr. Williams applied for and obtained his patent.

The facts in the case are these: Mr. Williams' patent was issued Nov. 15, 1892. Some time after that he wrote Mr. Root and sent the Patent Office drawings, and drawings of his own, with a description, and askt Mr. Root if he would put up one sample machine for him, and what he would charge for doing the work. Mr. Root declined to do the work, and wrote Mr. Williams a very discouraging letter—in fact, he wrote several such letters, and carried the discouraging feature in them to such an extent that it was commented upon by Mr. Williams and his friends at the time, as very peculiar, that Mr. Root should write him such letters, and try to discourage him about his extractor unless he (Mr. Root) had some object in so doing. Bear in mind this took place the forepart of January, 1893.

Previous to this time, Mr. Root had always maintained that the two-frame extractor was large enough for all practical purposes, and that those having out-apries should have a machine in each yard. But during the winter of 1893, a sudden change took place in Mr. Root's mind in regard to extractors, for towards spring he came out with his four and six frame Cowan, saying "they were just what extensive bee-keepers needed." Mr. Williams said there was a demand for just such an extractor as his, and wrote Mr. Root that there was. Altho the Roots made their boast in Gleanings that they were the leading manufacturers of bee-keepers' supplies, and that they "set the pace and led in the race," somehow or other they had failed to find out that there was a demand for a larger and better honey-extractor than had ever been put on the market, till after Mr. Williams sent them the drawings and description of his invention!

It was during March, 1893—some two months or more after Mr. Williams sent him the drawings and description of his extractor—that Mr. Root got out his first four and six frame Cowans, and sent out cuts of them to his customers. Mr. Williams sent some of those cuts to his patent attorney (Mr. Hough) at Washington, D. C., asking him if the Cowan extractors, as shown in the cuts, were not an infringement on his patent, as they had the gear attach to the comb-baskets with which to reverse, which was the essential part of his invention. The attorney had cuts of both machines, and the model of the Williams, and in his reply he said he had made a careful examination, and they were undoubtedly an infringement, for his (Williams') patent covered the principle of reversing the baskets with a gear, and it made no difference whether it was applied at the bottom or top of the reel, the principle of reversing was the same, and was covered by his patent.

Crawford Co., Wis.

[We sent an advance proof of the above article to The A. I. Root Co., so that their reply, if they desired to make any, might appear in connection with it. Here is what they have to say:—EDITOR.]

THE COWAN FOUR-FRAME EXTRACTOR NOT AN INFRINGEMENT.

As the Editor has kindly sent us a proof of the article by Van Allen & Williams, we hasten to reply so that both may appear in the same number.

Two or three months ago one of our customers wrote us that Van Allen & Williams claimed that our four-frame machine was an infringement upon their patent, and cautioned him against purchasing from us. We were promptly notified by the parties, and we immediately began an investigation, because this was the first intimation that we had had of the matter. We secured a copy of the patent; and after reading the claims through very carefully we were surprised that any one should say that our Cowan was an infringement. There

is only one claim, and that a combination claim, to the Williams patent, and it reads as follows:

"In a centrifugal honey-extractor the combination, with the comb-holder frame comprising two or more bars at its lower end, a ring uniting the same upright bars, and a ring uniting them at their upper ends, of comb-holders pivoted to said frame at points midway between the upright bars, a gear-segment carried by the pivot of each holder at its upper end, a ring having a rack for each segment, and a shaft carrying said ring, and journaled in said frame at its lower end, substantially as shown and described, and for the purpose specified."

It will be seen by those who are familiar with the principles of both machines that our extractor cannot by any manner of means be considered as an infringement. In the first place, the Patent Office, knowing that the sprocket-wheel-and-chain device for reversing four-frame extractors was very old, limited Mr. Williams to a very narrow combination claim. It is a well-known fact in patent law, in a combination claim, that every element is supposed to be necessary for its entirety. If, for example, Mr. A should use in a machine five of the six elements of a claim of any patented article, and should omit the sixth, he would not be infringing. This fact has been decided over and over again, until there can be no question about it. But where there are several claims to a patent, and one of the claims is infringed upon, then there is cause for action. As I pointed out, the Van Allen & Williams patent has only one claim, three elements of which we have not used, do not use, and never expect to use. The Williams extractor is advertised as an automatic reversing machine, the reversing being effected by the reversal of the crank motion. Our four-frame Cowans are not automatic, and never have been, the baskets being reversed with one hand while the other turns the crank. We believe that reversing by our plan is much more rapidly effected, because the machine does not have to be even stopped.

Moreover, it will be noticed that the reversing mechanism in the above claim is limited to the top, notwithstanding that Van Allen & Williams state that their patent covers either the top or bottom position. Then, again, the claim limits them to a gear and rack, while we use a sprocket-wheel and chain. We admit that there are points of similarity, just as we admit there are points of similarity between a buggy and a lumber wagon; but between our machine and the Van Allen & Williams there are vital and practical differences. It was Aspinwall & Treadwell who, in 1887, or thereabout, advertised and sold reversible extractors, making use of a sprocket-wheel and chain. Mr. H. Holden, of Port Dover, Ont., used this kind of extractor even before that. The sprocket-wheel-and-chain feature, as the Patent Office records show, is an old feature; and for Van Allen & Williams, or their attorney, to claim that our Cowan is an infringement is a little amusing in view of the printed matter showing that these ideas are very old. A similar arrangement was sent out by a Mr. Squire, in 1884 or 1885, of Santa Barbara, Cal. Reference to this machine is made on page 841 of Gleanings in Bee-Culture for 1889. We have other citations more important yet, but withhold them for the present.

With all due respect to the opinion of Attorney Hough, it will be seen that he saw only a *cut* of our extractors. He ought to know, as well as Van Allen & Williams, that a *cut* will give a very imperfect idea of the actual principles and workings of a machine. From the *cut* it might appear that our extractor was automatic in its reversing; but, as I have already pointed out, it is not automatic, and we defy any one to find any of our machines on the market that are automatic.

Another point should be noted is this: That attorneys do not usually discourage litigation. It is not their business to do so; and one will have to make an allowance for an opinion that is not altogether *ex parte*.

Van Allen & Williams state that Mr. Williams sent us a copy of the patent after it had been issued. Such a copy may have been sent, but we do not remember it, nor writing the discouraging letter in regard to building him a machine. The letter, if sent, probably came from our Mr. A. I. Root, who, at that time, was strongly opposed to our building four and six frame machines for the market, as he then believed there was no advantage in them; but "the boys"—Mr. Calvert and myself—did not entertain the same opinion, and we constructed a four-frame Cowan in 1891, but we did not advertise the machine until some time later. Mr. Calvert and myself were unaware that Mr. Williams sent a copy of the patent, and so, of course, there was no purpose on our part to copy or steal from another, as implied in the article above.

It will be seen from the foregoing, by any one knowing anything about patents at all, especially in view of the references cited, that Van Allen & Williams have no more right to claim the principles of our four-frame Cowan extractor than a

six-year-old boy. It is enough to say that, while it is possible for them to begin suit, they have no chance whatever of securing judgment in their favor. Our patrons may rest assured that we shall protect them in the use of the Cowan extractor.

THE A. I. Root Co.

By E. R. Root.



Do We Want Apis Dorsata At All?

BY H. CRISSMAN.

MR. EDITOR.—On page 188, Frank Coverdale makes a plea for the introduction of *Apis dorsata* through the Government. Speaking of Frank Benton's misdoing, he says: "This being true would be sufficient to denounce him, and to appoint another more suitable to bee-men." Does not Mr. C. know that bee-men have not a word to say as to the appointment, and that their wishes are not consulted in the matter? If Mr. Benton were removed some one equally objectionable might be in his place.

To come, however, to the real gist of the matter, do we want *Apis dorsata* here at all? As yet we do not know that they can be domesticated, and we do not know that a single pound of honey could ever be got from them, only as it might be had by bee-hunters in the wild state. Now let me picture what I think Mr. C. will admit lies entirely within the range of possibility:

The big bee is introduced into this country and flourishes—at least in the Southern states; makes its home in trees as it does in India, and increases enormously, but defies domestication. It gathers honey not only from red clover but also from white, and from all the flowers now visited by *Apis mellifica*. The bee-keeper is just so much out of pocket by its introduction, for the harvest is made just so much less. Cannot Mr. C. see that they would be as great a nuisance as the English sparrow? Even suppose they work on nothing but red clover, monopolizing that. The day may come when our common bees will be bred so large that they can work freely on red clover, and if red clover is already pre-empted by *dorsata*, what gain will the red-clover bees bring?

Do not say we cannot have *Apis mellifica* larger than they are in general now. There are common hive-bees in this country now, whose workers are so large that worker-cells are very nearly the size of common drone-cells, with drones large in proportion. If you have the true interests of bee-keepers at heart, don't bring *dorsata* here till you know you can control it.

Erie Co., N. Y.



When Shall Second Supers be Given to Bees?

BY DR. C. C. MILLER.

I don't wonder Frank Cole doesn't agree with my practice if he thinks, as he seems to on page 181, that before giving a second super I wait till the first is $\frac{1}{4}$ or $\frac{1}{2}$ full. But that's very far from my practice, Mr. Cole. I'll tell you what it is, or rather I'll try to tell you as nearly as I can, for I don't by any means always do alike. Even if I preferred to do the same thing each time, it would hardly be practicable with more than one apiary, for being absent a few days will make quite a difference in the progress made in a super. But the strength of a colony, the amount of the honey-flow, and the prospect of its continuance, have something to do in the matter.

As a rule, perhaps I might say that the second super is added when the first is about $\frac{1}{2}$ filled. But the rule is subject to many exceptions. Here's a colony that's very strong. It seems crowded with bees—super and hive both—honey is coming with a rush, with every prospect that it will continue so, and altho the super isn't a quarter filled, it may get a second one, for if it doesn't it may be crowded before it is reaht again. Here's another colony that has made poor work, and the season is poor. Its super is more than half full, but at the rate it has been doing, and at the rate honey is coming in, it can get along even if the super is more than $\frac{1}{2}$ full.

Now look again at page 42, and you'll see that I said nothing there to conflict with such practice. The first sentence in that answer to P. O. is incorrect—"would prefer closed-tops, so that the bees could get up through." I must have relied on the liberality of the compositor to furnish a "not" for that sentence, and I have my opinion of any compositor so stingy as not to furnish a little word like that, when I furnish all the big words. At any rate, it should read, "so that the bees could not get up through." I was calling attention to the loss it would be to have closed-top sections so one would have to wait for the first super to be finisht so as to take it off and put on the second. I might have said: "When the

first super is half filled it would be a loss of time to wait for it to be filled," but in some cases there would be no loss in waiting at least a little while. So to make sure I didn't overstate the thing, I said what I did, and surely you will agree that I said the truth in saying it would be a waste of time to wait after a super is $\frac{1}{2}$ filled. I am, however, obliged to you for calling attention to it, for others might also misunderstand it.

McHenry Co., Ill.

CONVENTION PROCEEDINGS

Report of the Illinois Bee-Keepers' Convention

BY JAS. A. STONE, SEC.

The Illinois State Bee-Keepers' Association met in Springfield Feb. 24, 1897, for a two days' session. The meeting was called to order by the President, Dr. C. C. Miller, and prayer was offered by George W. York.

The Secretary's report was read and adopted as follows:

THE SECRETARY'S REPORT.

At our last annual meeting arrangements were made with the American Bee Journal by which every one becoming a member of the Illinois State Bee-Keepers' Association, on payment of \$1.00, was entitled to a year's subscription to the American Bee Journal and a copy of the Second Annual Report. By this plan our membership was increased a little more than 50 per cent. above 1895, and just 50 per cent. above 1894. The expense in doing this has been beyond the income, but by the present arrangement with the American Bee Journal we are in hopes that the coming year will not overdraw on the treasury; and as we said last year, it is more our need to increase our membership than to fill our treasury.

Should the Association see proper to send out return postals for reports, as done last year, we have perhaps enough on hand to last a year. Also, we had on hand about 1,000 circulars such as were sent out to encourage membership.

We believe it is all-important that the present arrangement with the American Bee Journal be kept up till something better can be suggested. And with the present condition of the State treasury, we see no use of seeking for help in that direction.

We are of the opinion that the greatest good that this meeting can do is to take steps to get a law enacted to prevent the adulteration of honey, as we suggested in our notice of this meeting, in the American Bee Journal.

JAS. A. STONE, Sec.

The Treasurer's report was given by the Secretary, and adopted.

Next came a paper by George W. York, of Chicago, entitled,

WHAT COMBINED EFFORT IS NEEDED BY BEE-KEEPERS?

Now that question is a poser—quite too large a subject for so small a man to handle comfortably or satisfactorily. Also, as to what particular line is meant by the query, I can only guess, as I presume that is left for me to suggest.

In the first place, I am sure that the first direction in which a great combined effort of bee-keepers is needed is along the line of the prevention of honey-adulteration. As I have several times said, in print and elsewhere, I feel that until the question of adulteration of honey is settled, there can come no satisfactory profit or returns from the apriary. The size of the crop will cut no figure in the price of honey so long as the dishonest and unscrupulous are permitted to continue to multiply whatever the crop by ten, by the addition of glucose or other adulterants.

So I feel that, above all, there cannot be too great a combined effort among bee-keepers, if they desire that the adulteration of pure honey shall be stopped by the enactment and enforcement of legal measures. Here is a wide field, take it either by State legislatures, or through the National Congress. But there is no question that something must be done, and right speedily, or profitable honey-production is forever doomed.

Again, it may be that much may be gained by bee-keepers by a combined effort in marketing the honey crop, after we have once secured the necessary anti-adulteration laws. But I am not so sanguine of success along the line of a united effort in marketing as I once was. There are some questions whose end can be seen from the beginning. But this one of marketing is not of that kind. The more I think of it and learn about it, the more I am led to believe that it's too prodigious for me.

No doubt there is a better way to profitably market honey than is generally practiced, but what is it? Is it by the "Exchange" method? Perhaps so—and perhaps not. While the city commission plan answered well before large honey crops were produced, I think it will now be admitted that very soon some other way will have to be adopted.

For some time the city commission houses have been overstocked with honey—it has been a drug on the market. And why? It cannot be that people have stopped eating honey, especially when the price is so low. But is the price so low—the retail price—the price which the consumer pays? No. And therein I believe lies one important reason. The trouble is, the retailers in many cases are almost robbers. For instance, many Chicago retail grocers purchase the best $\frac{1}{2}$ -pound sections of honey at 12 cents per pound, or less, at the commission houses, and then retail them at 16 to 18 cents each! That's a profit of about 100 per cent! They will buy a $\frac{1}{2}$ -pound glass jar of extracted honey for 12 cents and retail it at 18 cents! A profit of 50 per cent! Is it any wonder that at these prices but little honey is used by the city public? The wonder is that any is sold.

I tell you, there must be some other method devised whereby the producer will get a larger share of the retail price, and also that the consumer may be enabled to get honey at a more reasonable figure. And perhaps a combined effort will be necessary before these two important objects are secured.

I might enumerate other lines in which combined efforts are needed—such as securing foul brood laws, protection from fraudulent commission dealers, etc., but perhaps I have suggested enough to start a discussion that may result in something of value even if what I have said is worthless.

GEORGE W. YORK.

In the discussion that followed Mr. York's paper, all were of the opinion that grocers generally demanded a larger per cent. in handling honey than in the other products of the farm or country.

The question was brought up in regard to the "pound" section, and about all the members were in favor of a full-pound section, tho' Dr. Miller said, as it was impossible to get all the sections a full pound, that it was not worth while to stand closely by it.

Mr. Smith—I sell my honey to the grocers by the section, and those that are right I cut out and sell to my neighbors by the pound, and I can sell all the honey I can get.

Mr. Robbins—I think we can come near enough to a pound to average 15 ounces.

The President reminded the convention that they were a little off the point of discussion, and referred them to the recommendation in the paper read by Mr. York—that action be taken as to adulteration—whereupon a motion made by Mr. Robbins prevailed, that a committee of three be appointed by the chair, as a Legislative Committee, to secure the enactment of a law to prevent the adulteration of honey in the State of Illinois. The President named as that committee those who lived near the capital—Jas. A. Stone, J. Q. Smith, and Geo. F. Robbins.

Mr. York advocated combined effort among bee-keepers, in the way of selling each other's honey.

A motion prevailed to adjourn to meet at 1:30 p.m.

At 1:30 p.m. the convention was called to order by Pres. Miller, and with unanimous consent it was thought wise for our meeting to join in with the State Farmers' Institute for the afternoon and evening; especially as our President was on their program in the evening.

SECOND DAY.

At 8:30 a.m. the meeting was called to order with Dr. Miller in the chair, the Secretary opening with prayer.

The Secretary then outlined the work needed for the year, recommending that we offer for this year again the American Bee Journal for one year free to all who become members of our Association and pay their fee of \$1.00 to the Secretary (to which Editor York kindly agreed); and also a copy of the Second Annual Report, which contains illustrations of the honey exhibits at the World's Fair, and a full report of the North American Convention of that year.

The Secretary also recommended, for this year again, the

sending out of return postal cards to members of the Association for their reports of honey, as there were probably enough cards on hand for the year.

He thought while it was very nice to have full reports of our meetings in the Bee Journal, still this was a drawback to our meetings being attended, as many would think they could stay at home and still have the report of the proceedings. This is all well enough if they are willing to have no part in shaping that which may result in the greatest good.

A motion prevailed that we proceed to the election of officers for the ensuing year, which resulted as follows:

President—Dr. C. C. Miller; Vice-Presidents—1st, J. Q. Smith; 2nd, S. N. Black; 3rd, Chas. Becker; 4th, Geo. F. Robbins; and 5th, Jas. A. Green. Secretary—Jas. A. Stone, of Bradfordton; Treasurer—Chas. Becker.

Dr. Miller's paper was the next in order, and he accused the Secretary of getting him into that scrape, and the only way the Secretary could get out safely was to first give the law on noxious weeds in Illinois, which he did as follows:

NOXIOUS WEEDS TO BE DESTROYED IN ILLINOIS.

"The Commissioners of Highways in their respective towns, and the County Commissioners in counties not under township organization, shall annually at the proper season to prevent the spread of the same, destroy or cause to be destroyed all cockle-burrs, Canada thistles, Russian thistles, and all other kinds of thistles, or other noxious weeds, growing brush or plants growing on or upon their respective highways within their jurisdiction."

Dr. Miller then gave the following on

SHOULD SWEET CLOVER BE CLAST AS A NOXIOUS WEED?

The State of Illinois has laws against Canada thistles along with certain other plants particularly named, and "other noxious weeds." As sweet clover is not specially named, the question arises whether it may fall under the category of "other noxious weeds." What is a noxious weed? Failing of any statutory definition, we must fall back on the dictionary. Referring to the Standard dictionary, a *weed* is defined: "Any unsightly or troublesome herbaceous plant that is at the same time useless or comparatively so, as a burdock or a dandelion; especially, such a plant that is positively noxious or injurious to crops; also, any herbaceous plant out of place, as a poppy in a wheat-field, or a stalk of wheat in a flower-garden." *Noxious* is defined; "Causing, or tending to cause injury, especially to health or morals; hurtful; pernicious."

The term "noxious weed" is evidently somewhat elastic, any plant under certain circumstances being a weed, and capable of being more or less noxious. One of the most useful plants—white clover—may be a weed in a strawberry-bed, and decidedly noxious. But that fact would hardly justify a law forbidding a farmer to allow white clover on his farm. Any assemblage of intelligent farmers would pronounce such a law absurd, while a law forbidding him to suffer Canada thistles on his farm under pain of severe penalty would be pronounced a righteous thing. If we can get at the reason for coming down so severely on the thistle, while the white clover goes scot-free, perhaps we may be in position to decide as to the proper status of sweet clover.

The indictment upon which the death sentence of Canada thistle is based, may come under three counts:

1. Its uselessness. Domestic stock find white clover a useful food, but not Canada thistle.

2. The difficulty of eradication where once established. The effort sufficient for the utter extinction of white clover, will find Canada thistle flourishing luxuriantly the following season.

3. Undoubtedly the most serious count against Canada thistle is the rapidity and certainty with which it spreads to adjoining and even somewhat distant territory by means of seed. A very small patch on one's land can speedily seed acres or miles around him.

Tried by these three tests, how does sweet clover stand? First as to uselessness. In some places, at least, it is considered a valuable forage crop, and its use is on the increase as green or dry forage. Its long and deep roots, after rotting, leave the soil in good condition for drainage, and for turning under as green manure it has undisputed value.

2. Is sweet clover difficult of eradication? While the thistle continues in perennial vigor year after year, the sweet clover is a biennial, every plant dying root and branch at the close of its second season. To exterminate it utterly it is not necessary to uproot a single plant. Simply cut down the stalks after they have made as full a growth as possible, but before any chance for maturity of seed, and there is no possible chance of its continuance. As the plant is biennial, this will be necessary for two successive years, where it has been grow-

ing uninterrupted. It is just as difficult to kill out as red clover, and no more so.

3. Does sweet clover spread rapidly by means of seed? and does it thus readily get a foothold upon cultivated ground at some distance? No burrs or wings are attached to the seed as with some other plants, and the ripened seed falls directly to the ground, carried, if carried at all, after its fall to the ground. Its chief means of spreading is by means of sticking to the wheels of vehicles when the ground is in a muddy condition, and in this way it may slowly be spread to some distance. And that's perhaps the only way in which it can spread more than five feet in a season. Not far from my home I can find where sweet clover has been growing for 40 years on the roadside without crossing the fence to encroach on cultivated land. Let a patch of sweet clover be growing on one side of the road and it may not cross to the other side for 10 years, altho it will gradually travel farther along the one side. Scarcely a weed that grows will do less at spreading upon cultivated land.

A charge that may with some propriety be brought against sweet clover is, that it grows so tall and strong as to obstruct travel on the highway. Left to itself throughout the entire season it is decidedly bad in this respect, but an intelligent roadmaster will have no difficulty. Cut it down just before it commences to bloom, and it will not again make so strong a stalk as to be a serious obstruction. Where cattle are allowed free range on the road year after year, they never allow sweet clover to get to any great height. I know a place where for many years sweet clover has been growing on the roadside. Throughout the summer, cows are driven along this road nearly a mile to and from pasture. Where the cows travel the sweet clover never attains a height of more than one of two feet. Immediately beyond, with no cattle to browse it down, it grows to a height of six or eight feet.

Will an intelligent jury decide that sweet clover is a noxious weed?

C. C. MILLER.

Mr. Smith—If sweet clover is cut at the proper time, it can be killed as easily as any other plant that is biennial. There was some cut in my neighborhood that was in bloom, but not seeded, cut very low, and it killed it so successfully that not a particle of it came afterward.

Dr. Miller—If it is cut at the proper time, and in the manner for feed, the growth after is not bad, nor in the way in the highways.

(Concluded next week.)

Questions and Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

The Alley Trap for Catching Queens.

Please tell me whether the Alley queen-trap is a success or not in catching queens in swarming-time? or do you know of any contrivance that is?

A. E. A.

ANSWER.—Yes, if you put an Alley trap in front of a hive, you may count on finding the queen in it if the colony swarms.

Bee-Space Between Tiered-Up Supers.

In tiering up sections, must there be a bee-space between each tier?

SUBSCRIBER.

ANSWER.—Probably there are very few nowadays who tier up supers (or storify supers, as the British perhaps more properly say) without having between each two supers a space of $\frac{1}{4}$ to $\frac{1}{2}$ of an inch. Years ago $\frac{1}{2}$ was the space used, but nowadays $\frac{1}{4}$ is considered better. Practically there's little difference in the two, between supers, altho there may be a distinct difference between top-bars and supers. At one time there was advanced the idea that bees would do better work if they had no space to cross, and "continuous passage-ways" were advocated. That is, sections were placed plumb down

on top of other sections. But bees don't seem to mind crossing a $\frac{1}{4}$ -inch space, and there are two objections to having one section rest directly on another. One objection is, that you will find it almost impossible to put one super of sections on another without crushing bees, unless there is a space between the two supers of sections. Another objection is, that if one super rests directly upon another the two will be thoroughly glued together, making the bottoms of the upper sections and the tops of the lower sections much worse daubed with glue than if a space was between.

Keeping Extra Queens Over Winter—Introducing Queens.

1. What is the best way to carry extra queens through the winter, that are not needed the summer before?

2. Can a queen be introduced into a colony in an hour, or later in the day, after a swarm has been sent out? or will I have to cut out all the queen-cells before introducing her?

COLORADO.

ANSWERS.—1. Keep them in a nucleus. But it isn't easy to winter a nucleus, so it isn't an easy thing to carry extra queens through the winter. You may, however, have pretty fair success by giving them the advantage of the heat of a strong colony. Have a bee-tight partition in your hive, using lumber $\frac{3}{4}$ thick or less. Let the colony occupy the larger apartment, and the nucleus the smaller. So far as I have tried it, the two colonies will nestle up against the division-board, making what would be a single cluster if the division-board should be quietly removed. I have tried it in a great many cases, but the two colonies or nuclei were generally of nearly equal strength. If one was very weak and the other very strong, the strong one might possibly cluster away from the partition, leaving the weak one to perish from cold. The safer plan would be to have the division-board in the middle, as mine always were, have the two nuclei about equal, and of such strength that the two united would make a good colony. Then in the spring you could take away the extra queen and unite, or take away one queen with enough to make a weak nucleus, uniting the rest.

2. Most likely she would be kindly received, but if the colony was sufficiently strong she might come out next day with a swarm. This might be avoided by brushing off all the bees that could be spared from the brood, uniting them with the swarm, and setting the old hive in a new place.

Cause of Apiaries Being Wiped Out in 1879.

On page 46 of Gleanings, for 1894, W. S. Fultz says: "[In] the winter of 1871 fully 75 per cent. of all the apiaries of Eastern Iowa and Western Illinois were wiped out of existence, and the others were so decimated that in nearly every case, not more than three or four hives were left, etc.....The cause of the great mortality to bees was said to be poisoned honey that had been gathered by them during the previous summer." This bears closely on subjects discuss on pages 248 and 249 of the August Review, and I am anxious to "run it down." The American Bee Journal was the only journal publish then, I believe, and probably contains more detailed accounts, and perhaps theories of the matter, which it might be useful to compare with the recent outbreak around Denver. But I have not the American Bee Journal for those years, and probably very few have. Can I be helpt out here? I am afraid the trouble may repeat itself this year. DENVER.

ANSWER.—I've spent no little time looking carefully through the American Bee Journal, but not with most satisfactory results. On page 212 of the March number for 1872, Father Langstroth, who was then staying at Washington, where the editor, Samuel Wagner, lived, writes:

"Both Mr. Wagner and myself have this winter had numerous letters, informing us that the mortality among bees from dysentery has been unusually severe. Several persons have attributed it to the large quantities of new cedar stored up by the bees. In many localities, large quantities of very thin honey were gathered too late to be thickened or sealed over by the bees. This thin honey in cold weather soon becomes thinner still, and then by fermentation sours, and is almost sure death to bees, especially if they are entirely confined to their hives." But no special reference is made to Iowa. On page 253 he says: "We learn from several prominent bee-keepers that if our suggestion in the last number about using the Hruschka [extractor] to empty thin honey, in the fall, could have been made last September, many colonies which have died of dysentery might have been saved."

On page 252, May number, Elisha Gallup, then at Orchart, Iowa, makes some remarks about wintering in general, but says nothing about any special mortality in Iowa. On page 254, he says: "We are wintering our large hives on the summer stands, and thus far (Feb. 15, 1872) we are highly pleased with the results."

On page 257 is an article that seems to bear more directly on the subject, written also by Mr. Gallup, who contributed oftener than any other writer to that volume of the Bee Journal. He commences: "In order to throw some light on this Bee-Disease," and then tells about the wintering of "10 colonies on the stands," in four different kinds of hives, and 42 colonies and 5 nuclei in the cellar. The substance of the report is that three colonies died outdoors because they were in hives so tall that "the cluster was in a wrong position, tall up and down," and the other three that wintered outdoors came through in spindid condition. In the cellar three of the nuclei, having all young bees, wintered well, and two having all old bees died. He continues:

"Bees left to themselves stopt breeding earlier last season than common on account of the drouth. Old queens stopt laying from two to three weeks earlier than young queens; consequently five colonies in the cellar with old queens had the dysentery when I set them out March 26, and large quantities of dead bees; probably two weeks longer of confinement would have used up the entire five colonies. I discovered that two colonies were queenless in September, and introduced young queens after it was too late for them to breed, hence they had all died with dysentery the first week in March. If the weather had been mild enough to have allowed them a purifying flight I could have saved them."

That's all I can find in any way bearing on the supposition that the winter of 1871-2 is meant. If the previous winter is meant, then I can find nothing at all relevant.

A Case of Weak Colony.

I have one colony of bees that seems to be weak. What is the matter with it? Does the queen want to meet a drone? She has been coming out and flying around in the warm part of the day ever since the last of February, and, if so, will she be too late? I saw young drones the last of February.

A. R. Y., Scott Co., Ark.

ANSWER.—There are many cases of weak colonies, and it may come from many causes. It is possible that your queen may turn out all right, for when a queen comes out at any other time than at swarming, you may count that she is not yet mated.

Preventing Increase of Colonies.

In preventing increase of colonies, have you ever practiced the plan of hiving the first swarm on frames with starters only, and then gradually replacing these frames with those belonging to the parent colony? If so, will you kindly give the result?

I have 46 colonies to open the season with. I will work for both comb and extracted honey, and desire to keep my number as near 50 as practicable. If you have a better plan than the above, will you be good enough to give that? (If it isn't patented). My bees are in 8-frame hives—Hoffman frames. My best swarm for 1896 filled seven supers of sections. They were hived June 10. They had also about 20 pounds for wintering.

Clark Co., Wis.

ANSWER.—I have followed exactly that plan, and have no patent method. Indeed, I may as well tell you privately that I don't know enough to know just what is the best method to pursue to get good crops and keep down your numbers. Very likely your plan will not turn out exactly as you expect or desire, but by starting out in the direction you indicate you may eventually reach something desirable. One danger is that you may return the combs of brood too soon and make the colony swarm again. If you wait too long, brood in the new combs will be so far advanced that little will be gained by changing.

If I were to try the plan, I think I would give the swarm only half its number of frames to start with, then in ten days or two weeks fill up with combs from the old hive containing most brood. If the old hive, after furnishing combs enough to fill up, had left some combs containing much brood, I'd swap for combs of the swarm containing the least sealed brood. Of course, you will put the swarm on the old stand, and leave in the old hive barely enough bees to care for the brood, or else give the swarm all the bees and otherwise dispose of the brood.



The AMERICAN Bee Journal

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK,

Editor.

PUBLISHED WEEKLY BY

GEORGE W. YORK & COMPANY,
118 Michigan St.,

CHICAGO, ILL.

\$1.00 a Year—Sample Copy Sent Free.

Entered at the Post-Office at Chicago as Second-Class Mail-Matter.

Vol. XXXVII. CHICAGO, ILL., APR. 22, 1897. No. 16.

Editorial Comments.

Lost Numbers of the Bee Journal.—It seems lately that a good many copies of the Bee Journal get lost in the mails—at least quite a number of our subscribers call for missing copies. Now, we don't know why that should be, for we use the same care in mailing that we always have. But in case you do miss a copy, ask for it, and we will send it again. Don't wait three or four months and then write us, for by that time we may be unable to supply it. We just now have a call from Australia for about 30 back numbers running through the years 1890 to 1894 inclusive. Of course we can't supply them now, even tho' the subscriber does offer us four cents per copy.

The New Union—A Call for Volunteers.—We have received the following "letter of acceptance" and "inaugural address" from Hon. Eugene Secor, the newly-appointed General Manager of the United States Bee-Keepers' Union :

EDITOR AMERICAN BEE JOURNAL—

Dear Sir :—I notice in your issue of April 8, that I have been "promoted." Did I not have the fullest confidence in the honesty of the Executive Board, I should suspect they had gone "behind the returns" in declaring me elected. The "people" evidently thought I hadn't anything to do, and that I would be glad to distinguish myself by a campaign of prohibition against fraud.

I have heard before of "office seeking the man," and this is positive proof that the theory upon which this government was founded has not gone into "innocuous desuetude."

Since "the voice of the people is the voice of God," I submit with the best grace possible.

But if it's war you want, please furnish the "munitions." There isn't any use for me to step into the "breach" unless at least 500 volunteers will "support" me.

Come on, boys! Let's at 'em! But, "money talks." Send your \$\$ to Dr. Mason—I don't want the stuff.

Yours truly,
Forest City, Iowa, April 8, 1897.

EUGENE SECOR.

Now that has the true ring of a leader. When a man says, "Come on," it means he's ready to go ahead, and only wants the rest of the "army" to follow and back him up.

Of course, the leader in the proposed fight to be undertaken by the New Union cannot do anything without "munitions," or "sinews of war." You see, he calls for 500 volunteers. That's not many. Why, there should be four times that many to respond at once from among the readers of the American Bee Journal alone. Then with all to "volunteer" from the readers of Gleanings, the Review, etc.—well, there oughtn't to be any trouble about "munitions."

Now, if it will be any more convenient for our readers to

send their membership money to this office, do so, and we will be glad to see that it gets into the proper hands. Every bee-keeper is interested in the work to be done by the New Union. So send on your dollar and become a member at once. Let us not allow the new General Manager to suffer for the want of "munitions," but rather back him up in such away that he will have no excuse to "let up" in the warfare against honey adulterators, commission frauds, and every other fraud that hinders or robs the honest producer of honey.

The New Union is already receiving words of encouragement. Here is what that big Minnesota bee-keeper, Mr. C. Theilmann, wrote us April 9 :

FRIEND YORK :—I see by this week's American Bee Journal, that the New Union is now in full operation, and I hope that all good bee-keepers who are willing, and desire, to keep in check and root out the honey-commission swindlers and thieves and adulterators, will join, and send in their dollars. I will send mine in to-day. Success cannot fail to be the outcome with such men in office as the New Union now has.

C. THEILMANN.

Mr. Theilmann has set a good example. Let 500 others do likewise before May 1. With such encouragement as that would be, General Manager Secor could "trot off" at a lively pace after the swarm of adulterators, honey-commission frauds, etc.

Is a New Union Unwise?—On page 242, Prof. Cook has a most excellent article—one that would have been about ten times as valuable had he written it in time for it to have had its influence on the vote on amalgamation last January. It seems strange that the Professor should now be so strongly in favor of one of the very objects proposed by the New Constitution, and yet when some of us were trying to bring about amalgamation, so that honey-adulteration might be fought, he did not favor it. One reason why we wanted to unite the two societies was so that the fight against honey-adulteration might be undertaken and pushed hard; for we knew the General Manager of the old Union was opposed to having that organization take up this important work. He showed that very clearly in his last Report, when he was opposing the New Constitution, where he said :

"The real question is this: Shall it now add to its work that of prosecuting honey-adulterators? Under the name of 'Amalgamation' the one *real point* sought to be gained is this feature, and that should be thoroughly understood.

"If the Union is to be re-organized to do this work, it will subvert its original purpose and mainly change its character. It will have multitudinous lawsuits begun all over the country, and must have lots of money to employ attorneys to attack that dydra-headed monster—adulteration."

Of course, it would "subvert its original purpose and mainly change its character," if amalgamation had carried. But who cares about "its original purpose" of defense, now that the work in that line is practically all done? Suppose its "character" had been changed so that the money now lying idle in the treasury of the old Union could be used in prosecuting adulterators, would anybody shed tears over that?

We think the fact is, there is no need to talk about the old Union taking up adulteration, for the majority voted to use its present funds as in the past, and at the rate of expending it the last two years, it will hold out perhaps two more years. The New Union is planned to do not only the work originally proposed by the old Union, but infinitely more, as specified in its objects, which we publish two weeks ago.

Prof. Cook says, and very correctly, too: "I am inclined to the opinion that many who voted at the last election [in January] were not informed properly or fully as to the just what was intended." Of course they "were not informed properly or fully." How could they be, when only one side of

the amalgamation matter was placed before them in the General Manager's Report, and that the wrong side? Nothing could have been more unfair than that. Had those favoring amalgamation been permitted to present their side of the case, as was clearly their right, if any side was to be presented, the result doubtless would have been very different.

Of course there is no need for two Unions, unless you want one to just put in its time in guarding a little pile of money, and the other to raise funds and do the fighting. As Prof. Cook says—and others have voiced the same sentiment—the old Union is no longer needed to defend the pursuit of bee-keeping in its right to existence. That was settled some 10 years ago.

Another thing, the New Union must be managed differently in some particulars than has been the old one. Just the other day a bee-keeper who for years was a member of the old Union, was in our office—and when asked why he dropped his membership, said:

"When I belong to any organization I want to know what is done with the funds. I want to know how much is paid for this, and how much for that. I have a right to know. That is the reason I and others, who were members out where I live, dropped out. I also think the Treasurer should give a bond. I expect to join the New Union."

Just so. Every member certainly desires to see both sides of the New Union's account, itemized, and published in the Annual Report. All have a perfect right to this. It is no reflection upon the honesty or administration of the General Manager to ask for such information. He should be only too glad to give it. And why should any public financial officer feel delicate about giving a limited bond? This is only a good business principle.

As the majority of the members of the old Union practically said by their votes that they did not desire that organization to take up issues other than that of defense; and as its General Manager is opposed to undertaking the fight against honey-adulteration, to us it looks to be the very wisest of wise moves to build up a New Union that will just go in to win; not only get the victory over the adulterators, but help to wipe out honey-commission frauds, and when necessary also do what little may yet be needed to defend apiarists in their constitutional right to keep bees.

On with the New Union! Let the volunteers rally around its standard, and then go forth to victory for the right!

After Adulterators in California.—Prof. Wenzell, the chemist of the San Francisco Board of Health, is after the adulterators of all kinds of food. He is making chemical analyses of syrups, jellies, and canned sweets of all kinds. Of course honey comes in also. In a half-column report on Prof. Wenzell's work, sent to us by Mr. A. B. Zinn, taken from the San Francisco Examiner of March 14, we find these paragraphs:

Sweeter than honey in the honey-comb is the honey that comes in glass bottles, so sweet and innocent and golden that only a health officer would dream of suspecting it. A canny little instrument, known as a polariscope, was turned on the different brands of "absolutely pure honey," with startling results. It is a scientific fact that a plane of polarized light, passing through pure honey, will be deflected to the left. If it deflects to the right, adulteration may be assumed.

The San Diego honey showed a melancholy deflection of 13.3 degrees to the right; the Los Angeles and White Clover but little less. From this a large proportion of glucose was inferred, as well as sugar and syrup. Glucose is not food, and no respectable bee would tolerate it in her cell for ten seconds. To label such compounds "pure honey" is an insult to Dr. Watts and John the Baptist. Fancy the latter reduced to a diet of locusts and glucose!

Mr. Zinn says that Prof. Wenzell's work shows him to be the "right man in the right place." With California's present stringent law against the adulteration of honey, it ought

to be easy to make it good and warm for those who attempt to adulterate the product of the bees. But when our Illinois legislature rises to its golden opportunity, and passes an anti-adulteration law, then look out for the unearthing of swarms of adulterators in Chicago. 'Tis said that "Every dog has his day," and we think the adulterator's "day" is coming on with great speed; and it will be a hot day for him, too. People are getting awfully tired of being swindled on both sides—inside and outside. What with frauds of all kinds to rob them of their hard-earned dollars, and the adulterators to tamper with what they eat, is it any wonder that honest people are wondering who is running this country, any way? It is time that those who believe in righteousness should arise in their might and everlastingly wallop the daylights out of the frauds of all kinds and conditions.

And the New Union is the agency that can help greatly in downing at least those who besmirch the fair character of the purest, best, and oldest sweet known to mankind.

The Weekly Budget.

MR. L. L. JACKSON, of Monterey Co., Calif., writing April 10, said: "The weather has been and is still quite warm for this season of the year, the thermometer registering as high as 90° in the shade."

DR. C. C. MILLER, in a letter we received April 14, says: "Winter isn't exactly lingering in the lap of spring, but spring doesn't seem to move very fast. I am busy hauling bees now to out-apiaries, and have three-fourths of them away."

MR. G. M. DOOLITTLE, in the Progressive Bee-keeper, says that this "is the secret of successful honey-production in a nutshell: First, secure the laborers *just at the right time for the honey harvest*, then keep an eye on things, giving only *just enough room in which to store all the honey coming from that harvest*, and you are *boss of the situation*." There you have it. It's no longer a "secret." Now profit by it.

Now for New Subscribers for the rest of 1897: We would like to have each of our present readers send us at least one new subscriber for the Bee Journal before June 1, 1897. That surely will not be hard to do, when they will need to pay only 60 cents for the rest of this year. That is about 8 months, or only 7½ cents a month for the weekly American Bee Journal. Any one with only a colony or two of bees should jump at such an offer as that.

Now, we don't ask you to work for us for nothing, but will say that for each new 60-cent subscriber you send us, we will mail you your choice of one of the following list:

Wood Binder for the Bee Journal.....	20c.
50 copies of leaflet on "Why Eat Honey?".....	20c.
50 " " on "How to Keep Honey".....	20c.
50 " " on "Alsike Clover".....	20c.
6 copies "Honey as Food and Medicine".....	20c.
1 copy each "Preparation of Honey for the Market" (10c.) and Doolittle's "Hive I Use" (5c.).....	15c.
1 copy each Dadants' "Handling Bees" (8c.) and "Bee-Pasturage Necessity" (10c.).....	18c.
Dr. Howard's book on "Foul Brood".....	25c.
Kohnke's "Foul Brood" book (10c.) and Dadants' "Hand-Bees" (8c.).....	25c.
Cheshire's "Foul Brood" book (10c.) and Dadants' "Hand-Bees" (8c.).....	18c.
Dr. Foote's Hand-Book of Health.....	25c.
Rural Life Book.....	25c.
Our Poultry Doctor, by Fanny Field.....	25c.
Poultry for Market and Profit, by Fanny Field.....	25c.
Capons and Caponizing.....	25c.
Turkeys for Market and Profit.....	25c.
Green's Four Books on Fruit-Growing.....	25c.
Ropp Commercial Calculator No. 1.....	25c.
Silo and Silage, by Prot. Cook.....	25c.
Bienen-Kultur (German).....	40c.
Kendall's Horse Book (English or German).....	25c.
1 Pound White Clover Seed.....	25c.
1 " Sweet ".....	25c.
1 " Alsike ".....	25c.
1 " Alfalfa ".....	25c.
1 " Crimson ".....	25c.
Queen-Clipping Device.....	30c.

We make the above offers only to those who are now subscribers; in other words, no one sending in his own 60 cents as a new subscriber can also claim a choice of the above list.

General Items.

White Clover Thick.

White clover is thick in this section, and I am hopeful. W. SPENCER. Macoupin Co., Ill., April 7.

Small Loss in Wintering.

I put part of my bees out the past three days, but it was hardly warm enough (52 degrees), and many scattered around and died. I have always found it risky to put them out if under 60 degrees above zero. Three colonies are dead (queenless) out of 130, but many will be short of stores and have to be fed. C. THEILMANN. Wabasha Co., Minn., April 9.

Plaster Casts for Foundation.

Bees in south Florida are doing well this season. There have been several swarms near me. I do not let mine swarm—"watch 'em too close."

Can any of the readers of the "Old Reliable" tell me how to make plaster casts for molding foundation? and how to operate them? Are they patented? If so, by whom? Don't all speak at once.

I have to come to the front to thank our Editor for the good work he is doing the bee-keepers in our land, by fighting frauds. May he ever live to continue in the good work. He is ever ready to do his share.

J. M. LASSITER. Hillsboro Co., Fla., April 7.

Good Honey Season Expected.

My bees are doing well, and I think we will have a good season for honey. I am a beginner with bees, this being my third season with bees. I live on the peninsula just below San Francisco. I do not ask any questions because I do not think it necessary as long as I take the Bee Journal; I also have the "A B C of Bee-Culture," Benton's and Newman's books. I think that any person with common intelligence these days can get along very well with the above. I get a good market for my honey and wax, because I have it in a neat, clean shape. As I attribute the most of my success to the Bee Journal I sincerely wish it and its editor success. M. P. SMITH. San Mateo Co., Cal., April 7.

The Mississippi River Overflow.

When a boy living in Canada I often read of the great Mississippi river, of the overflows in the Mississippi bottoms, and longed to live on the banks of that great river. So about eight years ago I went to Louisiana, near New Orleans, to live, but over 30 miles from the river; but not being satisfied there, I came to this (Bolivar) county and located my apiary near the levee, in a low spot. For the first two years we had no high water, but this spring it came. We have a levee over 12 feet high, and it looks strong enough to hold any pressure. About 11 weeks ago the health bureau predicted an overflow, and we watcht the water as it crept from 6 to 12 inches per day up the levee, until it began to slosh over. Men went to work to raise it—over 10,000 men, they say, were at work between Memphis and Vicksburg, trying to save it. It was a novel sight to me, to see that great water, as long as it staid on the opposite side.

About a week ago a man came riding into our place saying the levee had broken about 6 miles above. We all knew that meant to get ready. This break was about 3 o'clock in the afternoon. Some said the water would not reach us for 24 hours, but I went to work putting my bees up and getting ready. I workt until about 2 o'clock in the morning, when the mighty water began to roll in my apiary. I had my bees up 4 feet high—all said they were safe. I



This little picture will come home with telling force to many a tired and overworked farmer's wife, who has often felt that she could not longer stand the strain and who finally succumbed to disease. Poor woman! Do you not know that there is within your easy reach a remedy that will quickly restore you to health and happiness? A remedy that will positively cure

FEMALE COMPLAINTS BRIGHTS DISEASE URINARY TROUBLES GENERAL DEBILITY AND MALARIA

and all diseases caused by disordered Kidneys and Liver. It is a purely vegetable compound which has cured thousands and will cure you. Its name is

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Mention the American Bee Journal.

WANTED—ATTENTION!

SEE HERE, Friend Bee-keeper, the best goods are none too good, and the lowest prices are none too low for the present times, so down go the prices for 1897 on **Full Line of Bee-Keepers' Supplies**.

I defy competition in quality and workmanship. **Working Wax** into Foundation when sent to me, a specialty. Write, without fail, for Catalog. My prices are worth looking at. Wax wanted at 26c cash, or 29c in trade, delivered. August Weiss, Hortonville, Wis. 6A12t

Mention the American Bee Journal.

then put my bed up in the loft, and went up as the water had cut me off from the railroad or levee. In the morning I knocked a board off and looked out to see how the bees were doing, only to see part of the hives floating around. I went down in the water up to my waist (4 feet deep) and gathered them up the best I could, and tried to save them. How they are doing I cannot tell, but I think I shall lose heavily.

I then started to the apiary about 4 miles down the river, to see if the water had reached them, but the water had beat me there—not a hive of bees or a stand was left—all gone. I did not go to my upper apiary, about 4 miles up near the break, but learned they had all floated away. But I am in hopes to save enough to start again.

While sitting here and looking over the water, it looks like a mighty ocean. Thousands of cattle have drowned, hundreds of mules and hogs are gone, and many lives are lost—so it is reported.

All had it reported that I was drowned, as I did not get up town the next morning. When a party came down to my apiary to see where I was, and call me, I tell you I answered soon, and crawled out of the gable-end of my wigwam, and got in that dugout.

Now I tell all bee-men that I have enough of the great Mississippi river. Railroad tracks are washed away on both sides of us; no mail for a week, and God only knows when we will get any. I send this letter out with some men that are going out to meet a passing steamer. J. H. SIPLE. Bolivar Co., Miss., April 1.

Bees Wintered in Clamps.

I winter bees outside, packt in clamps with forest leaves, with a chaff cushion on top. I have from one to four colonies in each case. Out of the 40 colonies put up last fall, one is lost, and I consider that not bad for this latitude, and variable weather.

I like the Bee Journal so well that I would not like to lose even one number.

W.M. MILLER.

Ontario, Canada, April 10.

Working on Sapolel.

My bees are now working on sapolel—a bulb that sends up a small plant that is in bloom as soon as the snow is off. The bloom is very fragrant, and bees fairly cover it. It furnishes both pollen and honey, and is in bloom before the willows are. It is a bulb the Indians dig to make bread of. I do not know its scientific name, but the Indians call it "sapolel." It grows in rocky bars, and on thin, gravelly land, and is a splendid early bee-plant.

It is needless for me to say the American Bee Journal is a welcome visitor; it is always received with great interest, so much so that I often read it until it is too late to go to church, thus failing to hear some good sermons. S. W. MAXEY. Kittitas Co., Wash., April 5.

[Mr. Maxey, you should not let the Bee Journal interfere with your church duties. Remember the contents of this paper are not "too good to keep." They won't spoil if not devoured until several days after being received.—EDITOR.]

Bee-Keeping in Virginia.

The winter, in this locality, has been favorable to the safe wintering of bees, scarcely a week having past but what they were able to fly out, and all colonies that have sufficient stores pass the winters here without loss, on the summer stands, without any trouble as to packing, ventilation, etc. They commenced to gather pollen late in the month of February, and now, with cherries, peaches, pears, and plum trees in full bloom, and apple blossoms bursting forth, they are well bred up and strong in numbers. Last fall I took off some very fine honey, to my taste fully equal to any

Northern product. From what source it was gathered I do not know, as I summer at the North; but it is claimed here that the holly produces about the nicest.

Last spring I took with me to my New York State home, a few colonies about the middle of April, and I thought it paid well, and propose to repeat it this spring, for it did us good to notice how a frame or two of these young, vigorous bees and brood put new life into a weak, dwindling colony of old bees wintered at the North.

The weather has been rather cool for a few days past, and this morning a slight white frost was perceptible on the clover and grass, but somehow a frost here does not seem to kill plants and vegetation as it does at the North. I judge it is affected by the damper atmosphere, and denser air, for sound seems to travel farther, or is heard at a greater distance.

CHESTER BELDING.

Surry Co., Va., April 2.

Bees Wintered in a Clamp.

To-day I took out half of my bees; they were buried since the first of November, 1896. I started at 8 o'clock, a.m., and it was 44 degrees above zero in the shade, and when I got through it was 50 degrees, and out they flew. The wind blew a little from the east, and it was a fine day. Monday I expect to take out the balance, but these are 3 miles from my home, in the woods, and in the basswood also. I keep mine all in one clamp. All the bees I know of are alive. Soft maple is commencing to open. Clover looks well, and plenty of it.

D. D. DANIHER.

Dane Co., Wis., April 2.

Australia—A "Worker-Queen."

Our honey season is now nearly over, and with me it has been about the best I have had for the past 16 years.

Have you ever known bees to swarm with a laying worker instead of a queen? Well, I had a very small swarm do just that silly trick a few days ago. They settled on a small bush, and to find the queen I shook the bees on to a bottom-board, but could find no trace of her. I noted, however, one worker that they paid particular attention to, and which they treated exactly as they would a queen, by circling around her and moving out of her way as she went about. I watched her for some time, and from the respect and attention paid her, it was evident that the bees treated her as a queen. I then placed her in a new cage and set her down about a foot away from the cluster of bees, when they immediately started towards her and clustered around the cage. I then removed the queen and killed her, and on carefully opening her I found a single egg in her body. I am positive there was no other queen connected with this swarm, and that the bees recognized this worker as a queen.

H. L. JONES.

Queensland, Australia, March 13.

Painful Accident—New Union.

I expected to send my dollar to the New Union before this. I was waiting to see how the vote would come out on Feb. 1, when on Jan. 30 I slipped and fell on some steps in Minneapolis, while delivering butter, and dislocated my ankle, broke the small bone just above the ankle, and chipped the end of the large bone at the joint. So since then I have not had any stray dollars to send, but I will have, as I like the stand the New Union has taken on commission frauds, as I was taken in by Horrie & Co., in 1895, the time they had an advertisement in the American Bee Journal. I wrote to the editor at the time, and he replied that as far as he knew they were all right, so I shipped them my honey, and the next week their advertisement was out of the Bee Journal, and an editorial was in exposing them. I got 8 cents per pound, instead of 15 cents as they stated. But I have not lost

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Mention the *American Bee Journal*

SMOKERS and FOUNDATION

We do not catalog the Quinby or Hill Smokers this year, but there may be some who prefer these styles. We still have a few, and offer them at these special prices to close out:

The Quinby—2-inch barrel, single-blast, 35c.; postpaid, 50c. 2½-inch, double-blast, 60c.; postpaid, 75c.

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Nuclei and Bees by the Pound.

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Write for descriptive Circular Price-List and
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faith in the American Bee Journal, nor its editor, as I am still a subscriber, and I expect to be a member of the New Union, if for no other reason than to help in its fight against frauds.

I am just able to walk about the house without a cane, but use one out-doors. I was laid up three weeks in Minneapolis before I could get home, but I had the Bee Journal sent to me from home. Hurrah for the American Bee Journal and the New Union!

JOHN M. SEILER.

Carver Co., Minn.

[We are sorry to learn of your accident. The New Union is all ready to receive your membership fee now.—EDITOR.]

Favorable for a Good Season.

My 25 colonies have come through the winter in good condition, with the exception of three, which have dropped out. They had the first flight March 19; on April 7 there were a few bees coming loaded with pollen. It was warm and sunny up to the 9th, when the weather changed, and it snowed all day, closing them in again.

Last year was a very good one for this location. I winter my bees on the summer stands, packed with hulls snug and warm. Everything looks favorable for a good season this year. Clover was looking nice last fall; I can't tell yet how it will come through the winter. Clover and basswood are our main supply. Basswood gave us considerable last year, but I don't expect much from it this year, so if clover fails it will be good-by honey with us. Success to the American Bee Journal.

H. M. HEATH.

Orange Co., Vt., April 12.

Salt Water Cure for Foul Brood.

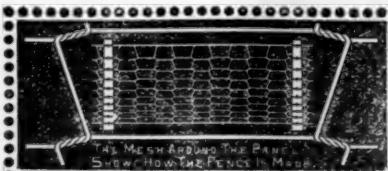
Will Mr. Golden please explain what the salt water cure for foul brood and bee-paralysis is? How are the bees treated? Does he consider it as good as the McEvoy treatment?

[Mr. Golden replies to the foregoing questions as follows:—EDITOR.]

In answering Mr. A. C. M.'s inquiries in regard to the salt water remedy, presuming he has in mind the electrolyzed sodium water mentioned in my article on page 180, permit me to say that so far as the electrolyzed salt water is concerned, it has never been tried either on paralysis or foul brood, to the best of my knowledge. He will notice on reading the article on page 180, that as there was no diseased bees, either foul brood or paralysis, existing in this section, I desired those having the disease amongst their bees to give the remedy a test and report. As I have explained in another article in regard to what electrolyzed salt water is, it will not be necessary to repeat it here. Also, I may say that plain salt water has never been used, so far as I know, for the cure of foul brood, but has been used very successfully in my treatment for the cure of bee-paralysis, as you will notice in the closing paragraph of the article on page 180. I also have given a statement as to how the treatment should be performed, in the article alluded to above, and which will appear soon in the American Bee Journal. J. A. GOLDEN.

Out-Door Wintering.

I have taken care of bees for 31 years, in three different nations, and have had good results with them. Some claim the cellar is a good place for bees during the winter months. I don't think so. I am living in as cold a part of the country as a bee wants to live, and we get six months of winter here on the Berkshire hills in Massachusetts. I leave my bees in the open lot, and find in 12 years I have not lost one colony with the cold. I have the Albino bee, the pure Italian, and the native black bee—77 colonies in all. Give me the native black

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Pet Stock and Incubators if conducted according to "The Chautauqua Guide to Big Profits" just out and sent postpaid with our 1897 Catalogue for 10c to help pay postage, etc. Best eggs and stock cost no more if purchased of us, you can then sell your product to us and thousands others for high fancy prices. We own 500 acres more, especially adapted to poultry. **CHAUTAUQUA POULTRY & PET STOCK FARM, Box 17 KENNEDY, N.Y.**

7A13 Mention the American Bee Journal.

SECTIONS!

We have a lot of Sections $4\frac{1}{4} \times 1\frac{1}{4} \times 7$ to-foot, which are off in color. We wish to close them out **QUICK**, so offer them at \$1.50 a M. They are not seconds, but are off in color—open on two and three sides.

Cat. of Bees and Supplies Free.

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BEES QUEENS
Smokers, Sections, Comb Foundation, and all Apisian Supplies cheap. Send for E. T. FLANAGAN, Belleville, Ill.

13A13 Please mention the Bee Journal.

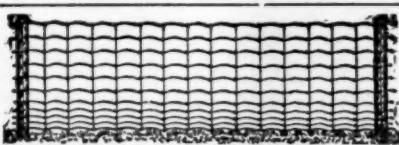
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bee ahead of any in this Northern climate. My last year's crop yielded me 4,500 pounds, and my bees have wintered well, and are just put on the summer stands. It is the first time they had a chance to fly. They went to their winter quarters on Dec. 9, and never had a flight until March 31, or had no privilege to fly. We had two or three feet of snow on the level here, and they came out just as strong as if it was May 1. Here are bees living in the open lot just as well as if housed up.

I have cleaned the bottom-boards of my colonies after the winter, and have not found a cup of dead bees on any board. Can you winter bees with any better results in a cellar?

Will moth-balls keep away moths without injury to the bees? **THOMAS COLLINS.**
Berkshire Co., Mass., April 6.

Sheeting Wax for Foundation.

In reply to Dr. Miller's query in "Stray Straws" of Gleanings for April 1, 1896, as to why I kept so still about my process for making continuous sheets of wax for foundation, I will now say that my silence has been due to the fact that a patent had not been obtained on my apparatus for making the sheets until recently. It is now patented, and, so far as I can find, the continuous sheet produced by me with my machine differs widely in method of making and in product from any other. It is a rapid worker, producing the sheet continuously from the melted wax. There is no lapping or welding done in this process. The machine is simple in construction, easily operated, either by hand or steam power, and the price is within the reach of any supply dealer.

I have about 200 colonies of bees in the cellar at present. The loss of bees in this vicinity has been quite heavy, owing to a shortage of stores last season.

THOS. EVANS.
Allamakee Co., Iowa, April 1.

Tennessee Bee-Keeping.

It is a very good thing that one man doesn't know it all. I find on page 204, an article entitled "Tennessee Bee-Keeping," telling how bees are kept along the Smoky mountains. I remember well an article I wrote to the Bee Journal about getting the bee-keepers of East Tennessee to organize into an association; and lo, when I wrote it, in a short time I found out that I was about two years behind the times. I found out that the East Tennessee Bee-Keepers' Association was organized, and was holding annual meetings. So you see I did not know it all, and I was about two years behind time.

Now the article referred to seems to insinuate that their is not a practical bee-keeper along the Smoky mountains. I have been keeping bees in those mountains about seven years, and I am not the first. Sam Wilson commenced keeping bees here in 1878, and they were not in log nor plank gums—they were in movable-frame hives, and he made a success of it, producing tons of honey, tho he is out of the business now.

I have some Italian bees, too, and they are in as good a hive as there is made, and in as good condition for a honey crop, if it comes. How many practical bee-men there are along the Smoky mountains I am not able to say.

I have at present about 80 colonies of bees. The time is now at hand when I have to begin my work for the summer. Fruit is blooming, in a few days huckleberry will be in bloom, and before it is over the main honey-flow will be on from the poplar, which is now getting green. Then we have the basswood next, which comes in June, and about the first of July we have the sourwood, which continues to bloom about three weeks.

I see occasionally some one says something about poisonous honey. While some think there is no such honey, there are others that know there is honey that is poisonous; and they know it comes from

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mountain laurel. I want to state right here, for my last time unless called on, that we get poisonous honey here from the laurel, about one time in ten, and I never have known any one poisoned to death from it, nor never will, tho it makes a person very sick. The bees will not work on laurel if there is anything else to work on.

I have about 100 pounds of honey now that is mixt with poisonous honey. It is nearly two years old, and is granulated, but it has the bitter, scorched taste.

W.M. WEBB.

Cooke Co., Tenn., April 5.

Bees in Florida—The Ti-Ti.

This locality last summer suffered with a severe and protracted drought, which proved to be the death-knell of many colonies of bees dying of starvation. By the law of "survival of the fittest," those that endured to the end were the best and strongest. After the fall rains flowers bloomed, and brood-rearing commenced, which continued during the winter, as on almost all fair days pollen could be gathered in the swamps, and probably some honey. Colonies were populous when fruit-trees bloomed, and by the middle of March swarms were issuing.

The ti-ti is a very interesting shrub or tree, growing in living water. All wet places are called "ti-ties." It is an Indian word, signifying tangle or thicket. There are three varieties of ti-ti, differing very little. The largest, which is quite a tree, grows where the water is the deepest, and they gradually grow smaller as there is less water. The bloom is in racemes of small, fragrant, white flowers, varying as to variety with tinge of pink. The bloom is used in Easter decorations, for making stars, etc., and is very beautiful. There is much honey gathered from this source, which is white, of good body and flavor.

Some of the ti-ties are such a tangle as to be almost or quite impenetrable, providing a safe retreat for wild animals. Its dense, evergreen foliage protects plants from frost, which bloom during winter; tho I cannot find them the bees can, and bring heavy loads to their hives every fine, warm day. I never saw heavier loads of pollen than bees gather from this source.

During the past month the prevailing winds have been from the south and east, with much rain. The streams are out of their banks, and many bridges have been carried away. There have been severe storms on the Gulf of Mexico and St. Andrews Bay, causing much discomfort and distress to travelers and fishermen.

There will be a few oranges at St. Andrews this season, of the Tangerine and Satsuma varieties, and other trees are fast recovering from the severe freezing of two years ago. The tree will bear much neglect and abuse if it does not freeze too hard; lemon trees are far more sensitive.

Mrs. L. HARRISON.
Washington Co., Fla., April 3.

Wintering Bees, Etc.

My bees have wintered on the summer stands nicely, some with outside boxes packt with short straw and chaff, and a chaff cushion in the super, after placing a burlap on the brood-frames. Others by driving stakes in front and rear of a row of hives, and putting a board cover over them, and boarding up the rear and ends, then filled in around the hives with short straw and chaff (having burlap and cushions on the same as those without outside boxes). Then I made a front enclosure the length of the shed out of lath cut the right length to reach from the ground to the roof, and nailed to two strips of narrow inch boards; then set it snugly against the front of the shed, letting the upper slat rest in the old-style wooden latch holder, fastened to the corner posts, so it can be lifted off to clean away dead bees, etc.; or in spring to set away for future use. The posts can remain, as they are not seriously in the way.

I started last spring with 15 colonies, 2

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not strong, had 5 swarms, 3 fairly early, and 2 in August—21st and 31st latest; and the last was a second swarm from a strong colony. I also bought 3 good colonies about Dec. 1, and brought them home in good condition, and they, too, are all doing well. I had some fears as to the last or second swarm that came off Aug. 31, and gave it 1 frame or two of honey (in November) from the upper story of one which had a surplus, and they have come through nicely, and appear strong to day.

I noticed the suggestion of S. T. Pettit in regard to a plan to encourage the bees to fill the outside sections in the super, and I have prepared 2 supers as he suggests. I like the idea. I think an inch piece put under the bottom-board at the rear end would be an improvement, as it would bring the hive-body to the same original level, and leave the bottom-board with a good forward slope downward, giving the bees a good chance to clean out everything dropping on the bottom.

I think the "old reliable" American Bee Journal is keeping well up with the advance in bee culture, and its editor is not slack, "as some men count slackness," to keep in the advance generally, of which I am glad.

GEO. McCULLOUGH.
Page Co., Iowa, April 8.

Prospects Good for this Season.

We are having a fine shower to-day, with very chilly northeast winds blowing. At this date everything bids fair for the bees, which have, so far as I can learn, come through the winter in very good condition. Mine are so, and have plenty of stores yet, with lots of sealed brood, and some young bees have been out of the cells as long as one week. Peach orchards are in full bloom, gooseberries are blooming, and will be fine for the bees for two weeks. Then the redbud trees are almost in bloom, which will be fine, and will last for two or three weeks, then come the hawthorne trees, which are good, and come in a good time. There are three kinds or varieties of them, which place their blooming at about three weeks, but they did not do much last year. In 1895 my bees stored some surplus honey from them, which was fine, but the honey had a peculiar appearance—it was very clear, and after being sealed in the cells it seemed to be full of little beads or bubbles. It was of good taste and thickness.

After these come plum bloom, apples, cherries, and wild white clover, which is getting to be plentiful; and what is called the Simpson honey-plant, growing wild, and other wild flowers too numerous to mention. And with all these there has been plenty of rain so far, to give them life and vigor such as I like to see them have for the secretion of nectar. Everything is very early here this spring. I am feeling very uneasy for the fruit crops yet in this section.

With all looking so promising at this time, bees have not done much as yet, on account of cool, windy, disagreeable days. I am in great hopes to see the grandest flow of nectar imaginable this season, and to see the bees store a bountiful crop of surplus honey. I have never seen better prospects for a good crop of honey since I have been keeping bees than at present. I hope present prospects will continue throughout the season, with good results.

R. L. HASTIN.
Cedar Co., Mo., April 8.

Trying to Grow Sweet Clover.

As Dr. Miller has asked for experience in sowing sweet clover, I will send mine in exchange for some of the many valuable things I have gotten from the Bee Journal.

I bought five pounds of sweet clover seed from a reliable supply dealer, and sowed it in three places—one was a choice piece of land, low, black, and damp, which had been summer fallowed the past season. I cultivated, sowed the seed, and harrowed six to

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The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

No. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Mar. 19.—Fancy white, 11@12c.; No. 1, 10@11c.; fancy amber, 9c.; No. 1, 7c.; fancy dark, 8c.; No. 1, 7c. Extracted, white, 5@7c.; amber, 5@6c.; dark, 4@4c. Beeswax, 23@27c.

Stocks are working down, but there is no improvement in price. The season for comb honey is drawing to a close. Any one intending to market in the cities should do so now.

Albany, N. Y., Mar. 20.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1, 8-9c.; fancy dark, 7-8c.; No. 1, 6-7c. Extracted, white, 5-6c.; dark, 3@4c.

Demand is all that could be expected at this season. Stock on hand small.

Indianapolis, Ind., Feb. 20.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

Boston, Mass., Feb. 20.—Fancy white, 13-14c.; No. 1, 11-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

St. Louis, Mo., Feb. 19.—Fancy comb, 12@13c.; No. 1 white, 11@11@14c.; amber, 9@10c.; dark, 7@8@9c. Extracted, white, in cans, 6@7c.; amber, in barrels, 4@4@4c.; extra, 5c.; dark, 3@4c. Good demand for barrel stock—comb slow sale. Beeswax, 23@23@24c.—prime finds ready sale at 23@24c.

San Francisco, Calif., Apr. 7.—White comb, 9-10c.; amber, 5-7c. Extracted, white, 5@6c.; light amber, 3@4c.; dark tule, 2@3c. Beeswax, fair to choice, 24-26c.

Philadelphia, Pa., Feb. 2.—Fancy white comb, 12-13c.; fancy amber, 8-9c.; No. 1, 8c.; fancy dark, 7-8c. Extracted, white, 5-7c.; amber, 4-5c.; dark, 3@4c. Beeswax, 25c.

Season is getting over for comb honey—very little demand. Extracted in good demand.

New York, N. Y., Apr. 10.—White comb, 10@11c.; amber, 8@9c.; dark, 6c. There is a fairly good demand for comb honey yet, and it keeps coming in small lots. Extracted is quiet at unchanged prices. The demand for buckwheat extracted has ceased, and no more sale for it. Beeswax is quiet at 26@27c.

Cincinnati, Ohio, Apr. 9.—Demand is slow for all kinds of honey, with a fair supply. Comb honey, 10@13c. for best grades; extracted, 3@4c. There is a fair home demand for beeswax, with a fair supply, at 22@25c. for good to choice yellow.

Kansas City, Mo., Apr. 10.—No. 1 white, 12@13c.; fancy amber, 11@12c.; No. 1 amber, 10@11c.; fancy dark, 9@10c.; No. 1 dark, 8@9c. Extracted, white, 5@5@4c.; amber, 4@4c.; dark, 4c. Beeswax, 25c.

Detroit, Mich., Mar. 12.—No. 1 and fancy white comb, 11-12c.; other brands, 7-10c. Extracted, white, 5-6c.; amber and dark, 4-5c. Beeswax, 24-25c.

Minneapolis, Minn., Feb. 20.—Fancy white, 11@12c.; No. 1 white, 10@11c.; fancy amber, 9@10c.; No. 1 amber, 8@9c.; fancy dark, 7@8c.; No. 1 dark, 7-8c. Extracted, white, 6@7c.; amber, 5@5@4c.; dark, 4@5c. Utah white extracted, 5@5@4c. Beeswax, 23@26c. Market fairly steady for comb and better for extracted than for some time.

Buffalo, N. Y., Apr. 16.—Very fancy honey, mostly 10 and 11c.; fair to good, from 9c. down to 7 and 8c.; very poor, dark, etc., 5-7c. Very little, if any, extracted in the market to quote. Write us before shipping.

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E. E. BLAKE & Co., 57 Chatham Street.

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Sweet Clover (white).....	.70	1.20	2.50	4.75
White Clover.....	.90	1.60	3.75	7.00
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Mention the American Bee Journal.



eight times. I mowed the weeds off once in the summer.

The second was sowed in a strip a rod or so wide, starting at the plowing on one side of the road under some large trees, and ending just inside a pasture.

The other was sowed in a Nebraska tree claim that had not been cultivated for some years, and grown up to sunflowers.

Now for the result: They were all about alike, all sprouted and came up very scattering, grew very spindling, and all died before fall.

Some 25 miles from here, near old Fort Kearney, on the Platte bottom, it grows without any coaxing, and has taken possession of the roadbeds, and got into some parts in spite of a bitter fight on the part of the farmers. I sowed Aisike a few days before the sweet clover, and have a nice stand in the tree rows of my orchard.

My bees have wintered well, in 8, 10, 12, and 16 frame dovetail hives, on the summer stands, put in rows 6 inches apart, with the entrances left open, packt with chaff, and a load of straw on top of each 10 hives.

J. T. KELLIE.

Kearney Co., Nebr., April 3.

Fruit Success.—The success of the fruit-grower of the present time depends more largely upon the appearance and quality of the fruit itself than anything else. Gnarled, knotty fruit, or that which shows the effect of insect workings, must be sold at a very low price, if it finds a market at all. Uneven and scrawny bunches of grapes, which show the effects of Phylloxera or other fungoid diseases, lose money to their grower. The sickly, insipid or bitter peaches and plums, which indicate yellow, mildew, black-knot, etc., find poor sale at any price. Practically the same is true of berries and small fruits. It is only the best fruit that escapes the keenest com-



petition and finds a ready market. The man who does not grow the best fruit is not living up to his full privilege. This is an easy accomplishment by the employment of correct methods, and that embraces complete and thorough spraying of all vines, plants and trees. For this purpose the outfit which is here illustrated will be found very complete and efficient. It is the "Bordeaux" Brass Garden and Spray Pump, especially designed for spraying in gardens, greenhouses, and among small fruits, and is manufactured by the Goulds Mfg. Co., Seneca Falls, N. Y. They make a full line of spraying goods which are fully described and illustrated in their free book on "How and When to Spray." Write them for a copy at once, not forgetting to say you saw their advertisement in the American Bee Journal.

Illinois.—The spring meeting of the Northern Illinois Bee-Keepers' Association will be held Tuesday, May 18, at the residence of H. W. Lee, at Pecatonica, Ill. All are cordially invited to attend. Means of conveyance will be at the station for the benefit of those coming on trains.

B. KENNEDY, Sec.

Connecticut.—The 6th annual meeting of the Connecticut Bee-Keepers' Association will be held at the capitol at Hartford, May 5, at 10:30 a.m. Let all interested in bee-culture make an extra effort to be present.

Waterbury, Conn. MRS. W. H. RILEY, Sec.

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